

HIGH LUMINESCENCE PHOSPHOR PARTICLES AND METHODS FOR PRODUCING THE PARTICLES

ABSTRACT OF THE DISCLOSURE

5 Methods for producing metal/metalloid oxide particles comprise rare earth metals
herein include reacting a reactant stream in a gas flow. The reactant stream includes a rare earth
metal precursor and an oxygen source. A collection of particles comprising metal/metalloid
oxide have an average particle size from about 15 nm to about 1 micron. The metal/metalloid
oxide comprises a non-rare earth metal oxide wherein less than about 25 percent of a non-rare
10 earth metal is substituted with a rare earth metal. The particles are useful as phosphors, for
example for use in displays.